

SEQUENCE LISTING

<110> Rosanne M. Crooke
Mark J. Graham
Pam Nero
Edward Wancewicz

<120> ANTISENSE MODULATION OF CHOLESTERYL ESTER TRANSFER PROTEIN
EXPRESSION

<130> ISPH-0596

<160> 50

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 1

tccgtcatcg ctcctcaggg

20

<210> 2

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 2

atgcattctg cccccaagga

20

<210> 3

<211> 1787

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (131)...(1612)

<400> 3

gtgaatctct ggggccagga agaccctgct gcccggaaga gcctcatggt ccgtgggggc 60
tgggcggaca tacatatacg ggctccaggc tgaacggctc gggccactta cacaccactg 120
cctgataacc atg ctg gct gcc aca gtc ctg acc ctg gcc ctg ctg ggc 169
Met Leu Ala Ala Thr Val Leu Thr Leu Ala Leu Leu Gly
1 5 10

aat gcc cat gcc tgc tcc aaa ggc acc tcg cac gag gca ggc atc gtg 217
Asn Ala His Ala Cys Ser Lys Gly Thr Ser His Glu Ala Gly Ile Val

15					20					25						
tgc	cgc	atc	acc	aag	cct	gcc	ctc	ctg	gtg	ttg	aac	cac	gag	act	gcc	265
Cys	Arg	Ile	Thr	Lys	Pro	Ala	Leu	Leu	Val	Leu	Asn	His	Glu	Thr	Ala	
30					35					40					45	
aag	gtg	atc	cag	acc	gcc	ttc	cag	cga	gcc	agc	tac	cca	gat	atc	acg	313
Lys	Val	Ile	Gln	Thr	Ala	Phe	Gln	Arg	Ala	Ser	Tyr	Pro	Asp	Ile	Thr	
				50					55					60		
ggc	gag	aag	gcc	atg	atg	ctc	ctt	ggc	caa	gtc	aag	tat	ggg	ttg	cac	361
Gly	Glu	Lys	Ala	Met	Met	Leu	Leu	Gly	Gln	Val	Lys	Tyr	Gly	Leu	His	
			65					70					75			
aac	atc	cag	atc	agc	cac	ttg	tcc	atc	gcc	agc	agc	cag	gtg	gag	ctg	409
Asn	Ile	Gln	Ile	Ser	His	Leu	Ser	Ile	Ala	Ser	Ser	Gln	Val	Glu	Leu	
		80					85					90				
gtg	gaa	gcc	aag	tcc	att	gat	gtc	tcc	att	cag	aac	gtg	tct	gtg	gtc	457
Val	Glu	Ala	Lys	Ser	Ile	Asp	Val	Ser	Ile	Gln	Asn	Val	Ser	Val	Val	
	95					100					105					
ttc	aag	ggg	acc	ctg	aag	tat	ggc	tac	acc	act	gcc	tgg	tgg	ctg	ggt	505
Phe	Lys	Gly	Thr	Leu	Lys	Tyr	Gly	Tyr	Thr	Thr	Ala	Trp	Trp	Leu	Gly	
110					115					120					125	
att	gat	cag	tcc	att	gac	ttc	gag	atc	gac	tct	gcc	att	gac	ctc	cag	553
Ile	Asp	Gln	Ser	Ile	Asp	Phe	Glu	Ile	Asp	Ser	Ala	Ile	Asp	Leu	Gln	
				130					135					140		
atc	aac	aca	cag	ctg	acc	tgt	gac	tct	ggt	aga	gtg	cgg	acc	gat	gcc	601
Ile	Asn	Thr	Gln	Leu	Thr	Cys	Asp	Ser	Gly	Arg	Val	Arg	Thr	Asp	Ala	
			145					150					155			
cct	gac	tgc	tac	ctg	tct	ttc	cat	aag	ctg	ctc	ctg	cat	ctc	caa	ggg	649
Pro	Asp	Cys	Tyr	Leu	Ser	Phe	His	Lys	Leu	Leu	Leu	His	Leu	Gln	Gly	
		160					165					170				
gag	cga	gag	cct	ggg	tgg	atc	aag	cag	ctg	ttc	aca	aat	ttc	atc	tcc	697
Glu	Arg	Glu	Pro	Gly	Trp	Ile	Lys	Gln	Leu	Phe	Thr	Asn	Phe	Ile	Ser	
	175					180					185					
ttc	acc	ctg	aag	ctg	gtc	ctg	aag	gga	cag	atc	tgc	aaa	gag	atc	aac	745
Phe	Thr	Leu	Lys	Leu	Val	Leu	Lys	Gly	Gln	Ile	Cys	Lys	Glu	Ile	Asn	
190					195					200					205	
gtc	atc	tct	aac	atc	atg	gcc	gat	ttt	gtc	cag	aca	agg	gct	gcc	agc	793
Val	Ile	Ser	Asn	Ile	Met	Ala	Asp	Phe	Val	Gln	Thr	Arg	Ala	Ala	Ser	
				210					215					220		
atc	ctt	tca	gat	gga	gac	att	ggg	gtg	gac	att	tcc	ctg	aca	ggt	gat	841
Ile	Leu	Ser	Asp	Gly	Asp	Ile	Gly	Val	Asp	Ile	Ser	Leu	Thr	Gly	Asp	
			225				230						235			
ccc	gtc	atc	aca	gcc	tcc	tac	ctg									

atc tac aag aat gtc tca gag gac ctc ccc ctc ccc acc ttc tcg ccc	937
Ile Tyr Lys Asn Val Ser Glu Asp Leu Pro Leu Pro Thr Phe Ser Pro	
255 260 265	
aca ctg ctg ggg gac tcc cgc atg ctg tac ttc tgg ttc tct gag cga	985
Thr Leu Leu Gly Asp Ser Arg Met Leu Tyr Phe Trp Phe Ser Glu Arg	
270 275 280 285	
gtc ttc cac tcg ctg gcc aag gta gct ttc cag gat ggc cgc ctc atg	1033
Val Phe His Ser Leu Ala Lys Val Ala Phe Gln Asp Gly Arg Leu Met	
290 295 300	
ctc agc ctg atg gga gac gag ttc aag gca gtg ctg gag acc tgg ggc	1081
Leu Ser Leu Met Gly Asp Glu Phe Lys Ala Val Leu Glu Thr Trp Gly	
305 310 315	
ttc aac acc aac cag gaa atc ttc caa gag gtt gtc ggc ggc ttc ccc	1129
Phe Asn Thr Asn Gln Glu Ile Phe Gln Glu Val Val Gly Gly Phe Pro	
320 325 330	
agc cag gcc caa gtc acc gtc cac tgc ctc aag atg ccc aag atc tcc	1177
Ser Gln Ala Gln Val Thr Val His Cys Leu Lys Met Pro Lys Ile Ser	
335 340 345	
tgc caa aac aag gga gtc gtg gtc aat tct tca gtg atg gtg aaa ttc	1225
Cys Gln Asn Lys Gly Val Val Val Asn Ser Ser Val Met Val Lys Phe	
350 355 360 365	
ctc ttt cca cgc cca gac cag caa cat tct gta gct tac aca ttt gaa	1273
Leu Phe Pro Arg Pro Asp Gln Gln His Ser Val Ala Tyr Thr Phe Glu	
370 375 380	
gag gat atc gtg act acc gtc cag gcc tcc tat tct aag aaa aag ctc	1321
Glu Asp Ile Val Thr Thr Val Gln Ala Ser Tyr Ser Lys Lys Lys Leu	
385 390 395	
ttc tta agc ctc ttg gat ttc cag att aca cca aag act gtt tcc aac	1369
Phe Leu Ser Leu Leu Asp Phe Gln Ile Thr Pro Lys Thr Val Ser Asn	
400 405 410	
ttg act gag agc agc tcc gag tcc atc cag agc ttc ctg cag tca atg	1417
Leu Thr Glu Ser Ser Ser Glu Ser Ile Gln Ser Phe Leu Gln Ser Met	
415 420 425	
atc acc gct gtg ggc atc cct gag gtc atg tct cgg ctc gag gta gtg	1465
Ile Thr Ala Val Gly Ile Pro Glu Val Met Ser Arg Leu Glu Val Val	
430 435 440 445	
ttt aca gcc ctc atg aac agc aaa ggc gtg agc ctc ttc gac atc atc	1513
Phe Thr Ala Leu Met Asn Ser Lys Gly Val Ser Leu Phe Asp Ile Ile	
450 455 460	
aac cct gag att atc act cga gat ggc ttc ctg ctg ctg cag atg gac	1561
Asn Pro Glu Ile Ile Thr Arg Asp Gly Phe Leu Leu Leu Gln Met Asp	
465 470 475	

ttt ggc ttc cct gag cac ctg ctg gtg gat ttc ctc cag agc ttg agc 1609
Phe Gly Phe Pro Glu His Leu Leu Val Asp Phe Leu Gln Ser Leu Ser
480 485 490

tag aagtctccaa ggaggtcggg atggggcttg tagcagaagg caagcaccag 1662

gctcacagct ggaaccctgg tgtctcctcc agcgtggtgg aagttgggtt aggagtacgg 1722
agatggagat tggctcccaa ctctcccta tcctaaaggc cactggcat taaagtgctg 1782
tatcc 1787

<210> 4
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 4
tcgacatcat caaccctgag 20

<210> 5
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 5
ctaaccacaac ttccaccag 20

<210> 6
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Probe

<400> 6
cctgagcacc tgctggtgga tttcctccag agcttgagct agaagtctc 49

<210> 7
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 7
gaaggtgaag gtcggagtc 19

<210> 8
<211> 20
<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer

<400> 8

gaagatgggtg atgggatttc

20

<210> 9

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Probe

<400> 9

caagcttccc gttctcagcc

20

<210> 10

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 10

aacatgaggc tcttccgggc

20

<210> 11

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 11

gcctggagcc cgtatatgta

20

<210> 12

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 12

taagtggccc gagccgttca

20

<210> 13

<211> 20

<212> DNA

<213> Artificial Sequence

<220>		
<223> Antisense Oligonucleotide		
<400> 13		20
cagccagcat gggtatcagg		
<210> 14		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Antisense Oligonucleotide		
<400> 14		20
gcatgggcat tgcccagcag		
<210> 15		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Antisense Oligonucleotide		
<400> 15		20
gcacacgatg cctgcctcgt		
<210> 16		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Antisense Oligonucleotide		
<400> 16		20
atcatggcct tctcgcccg		
<210> 17		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Antisense Oligonucleotide		
<400> 17		20
ctggatggtg tgcaacccat		
<210> 18		
<211> 20		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Antisense Oligonucleotide		

cttgaactcg tctcccatca	20
<210> 24	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Antisense Oligonucleotide	
<400> 24	20
ccccaggtct ccagcactgc	
<210> 25	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Antisense Oligonucleotide	
<400> 25	20
ccacagcggg gatcattgac	
<210> 26	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Antisense Oligonucleotide	
<400> 26	20
tccaccagca ggtgctcagg	
<210> 27	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Antisense Oligonucleotide	
<400> 27	20
ggagacttct agtcaagct	
<210> 28	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Antisense Oligonucleotide	
<400> 28	20
ttctgctaca agcccatcc	

<210> 29
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Antisense Oligonucleotide

<400> 29
 aggagacacc agggttccag 20

<210> 30
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Antisense Oligonucleotide

<400> 30
 gtactcctaa cccaacttcc 20

<210> 31
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Antisense Oligonucleotide

<400> 31
 cccgagccgt tcagcctgga 20

<210> 32
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Antisense Oligonucleotide

<400> 32
 ggcagccagc atggttatca 20

<210> 33
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Antisense Oligonucleotide

<400> 33
 aggactgtgg cagccagcat 20

<210> 34
 <211> 20

<212> DNA
 <213> Artificial Sequence

<220>
 <223> Antisense Oligonucleotide

<400> 34
 ggcttggtga tgcggcacac 20

<210> 35
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Antisense Oligonucleotide

<400> 35
 ggcagtctcg tggttcaaca 20

<210> 36
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Antisense Oligonucleotide

<400> 36
 gacaagtggc tgatctggat 20

<210> 37
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Antisense Oligonucleotide

<400> 37
 gtcaatggac tgatcaatac 20

<210> 38
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Antisense Oligonucleotide

<400> 38
 aaaatcggcc atgatgtag 20

<210> 39
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<223> Antisense Oligonucleotide

<400> 44

ataatctcag ggttgatgat

20

<210> 45

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 45

ctagctcaag ctctggagga

20

<210> 46

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 46

gagacttcta gctcaagctc

20

<210> 47

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 47

gcttgcttc tgctacaagc

20

<210> 48

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 48

aacccaactt ccaccagct

20

<210> 49

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Antisense Oligonucleotide

<400> 49
aatctccatc tccgtactcc

20

<210> 50
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Antisense Oligonucleotide

<400> 50
ccagtgggcc tttaggatag

20

0925139-08001
T08080-GET52660